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- (54) Title

 HAIR PRODUCTS CONTAINING DIMETHYL DIALLYL AMMONIUM
 CHLORIDE/ACRYLIC ACID-TYPE POLYMER
- (57) Claim
 - 1. A method for improving conditioning properties of a hair product comprising adding to said hair product an effective amount of a polymer comprising:
 - a.) about 60 to about 99%, by weight of said polymer, of a quaternary diallyl dialkyl ammonium monomer, wherein alkyl groups are independently selected from alkyl groups of 1 to 18 carbon atoms and wherein said quarternary diallyl alkyl ammonium monomer's counterion is selected from the group consisting bases of acids having an ionization constant greater than 10⁻¹³.
 - b.) about 1 to about 40%, by weight of said polymer, of an anionic monomer selected of the group consisting of acrylic acid and methacrylic acid; wherein the weight average molecular weight of said polymer ranges from about 50,000 to about 10,000,000, as determined by gel permeation chromatography.

8. An improved hair product which comprises:

- a. an active agent;
- b. an anionic surfactant;
- a copolymer comprising;
 - about 60 to about 99%, by weight of said polymer, of a monomer selected from the group consisting of dimethyldiallyl ammonium chloride and diethyldiallyl ammonium chloride; and
 - 2. about 1 to about 30%, by weight of said polymer, a monomer selected from the group consisting of acrylic acid, and methacrylic acid, wherein said polymer has a weight average molecular weight ranging from about 50,000 to about 10,000,00, as determined by gel permeation chromatography.